



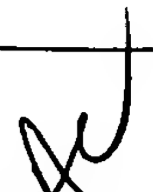
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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|---|-------------|----------------------|---------------------|------------------|
| 10/625,532 | 07/24/2003 | Hideki Naruoka | 240626US2 | 8156 |
| 22850 | 7590 | 11/18/2004 | EXAMINER | |
| OBLON, SPIVAK, MCCLELLAND, MAIER & NEUSTADT, P.C. 1940 DUKE STREET ALEXANDRIA, VA 22314 | | | DESTA, ELIAS | |
| | | | ART UNIT | PAPER NUMBER |
| | | | 2857 | |

DATE MAILED: 11/18/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

| | | | |
|------------------------------|--------------------------------------|--|---|
| Office Action Summary | Application No. 10/625,532 | Applicant(s) NARUOKA, HIDEKI | |
| | Examiner Elias Desta | Art Unit 2857 |  |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 2 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 24 July 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☒ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-12 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☐ Claim(s) _____ is/are rejected.
- 7) ☒ Claim(s) 1-12 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 24 July 2003 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date <u>07/24/2003</u> . | 6) <input type="checkbox"/> Other: _____ |

Detailed Action

Drawing

1. The drawing is objected to because of the following minor informalities:
 - Figs. 1 and 23: label sections 1 and 20 as to function;
 - Fig. 20: label sections 15 and 16 as to function.

Abstract

2. The abstract of the disclosure is objected to because of the following minor informalities:

Line 2: delete the phrase "It is an object to obtain" and start with 'A method ...' and delete the word "which" and replace it with the word 'that';

Line 3: delete the phrase "At a step S11," and start with 'A virtual ...';

Line 5: delete the phrase "At a step S12," and start with 'An inspection ...';

Line 6: delete "(C0) having" and replace it with the word "on";

Line 7: delete "(C1) having no" and replace it with 'at';

Line 8: delete "At a step S13" and replace it with the word "Further," and delete the "PUA" equation or expression;

Line 9: delete "(C10)"; and

Line 10: delete "(C1)". Correction is required.

Specification

3. The specification is objected to because of the following minor informalities:

➤ Page 1,

- Line 6: put period after the word “wafer”;
- Line 7: delete the phrase “to inspect” and start with the following phrase: ‘The quality inspection of a semiconductor is based on ...’
- Line 8: delete the phrases “such as”, “, or the line” and put period at the end of the sentence;
- Line 13: delete the phrase “has a bad influence on a” and replace it with the phrase “degrades the”;
- Line 13-17: rewrite the expression starting ‘...device lowers yield. Hence, a shipping standard of the semiconductor wafer is very strict and provides the standard to satisfy the inspection requirement of a semiconductor wafer so that an acceptable product is shipped’
- Lines 21-23: rewrite the expression starting ‘...increased which also adds a cost to semiconductor processing; furthermore, the

rejection rate is also reflected on the effect it has on the environment and energy conservation’;

- Lines 24-25: delete the phrase “has been” and replace it with the word ‘is’;
- Page 21, line 21: the word should be “(segmented)”;
- Page 22, line 2: delete the phrase “As a matter of course” and start with ‘It is also possible to synthetically ...’
- Page 14: SOI should be defined as ‘Silicon-On-Insulator’
- Please revise pages 2-3

The lengthy specification has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.

Clam Objection

4. Claims 1 and 4 are objected to because of the following minor informalities:
- Claim 1: page 24, line 13: delete “the” and replace it with ‘a’;
 - Claim 4: page 25, line 18: The acronym “SOI” should be defined as ‘Silicon-On-Insulator’ before the term is used in claim 4.

The remaining claims are objected to the extent that they depend on an objected base claim 1.

Citation of pertinent prior art:

- Bonder et al. (IEEE Article, 'Virtual Factories: An Object-Oriented Simulation-Based Framework for Real-Time FMS Control') teaches a method of developing formal model of a system structure and behavior to support control policy development and performance assessment where the work is performed in the facilities of virtual factory lab and has no correlation to the actual measurement and evaluation method.
- Saraswat (IEEE Article, 'Programmable Factory for IC Manufacturing for the 21st Century') teaches a case study of computer integrated manufacturing (CIM) for added flexibility where extensive use of CIM for specification, monitoring, control and information management makes switching between processes faster and more reliable.
- McCord et al. (U.S. Patent 6,664,546) teaches a measurement device for optimizing electron beam inspection and metrology based on surface potential.
- Fredriksen et al. (U.S. Patent 6,021,380) teaches automatic semiconductor wafer sorter/probe with extended optical inspection.

- Rumsey (U.S. Patent 6,415,977) teaches method and apparatus for making and identifying a defective die site.
- Nara et al. (U.S. PAP 2002/0109088) teaches inspection method, apparatus and system for observing defect image and distribution profile at the same time.

Conclusion

5. This application is in condition for allowance except for the following formal matters: see specification, drawing and claim objections as noted above. Prosecution on the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

A shortened statutory period for reply to this action is set to expire **TWO MONTHS** from the mailing date of this letter.

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Elias Desta whose telephone number is (571)-272-2214. The examiner can normally be reached on M-Thu (8:30-7:00).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Marc S. Hoff can be reached on (571)-272-2216. The fax phone numbers for the organization where this application or proceeding is assigned are (703)-872-9306 for regular communications and After Final communications.

Application/Control Number: 10/625,532
Art Unit: 2857

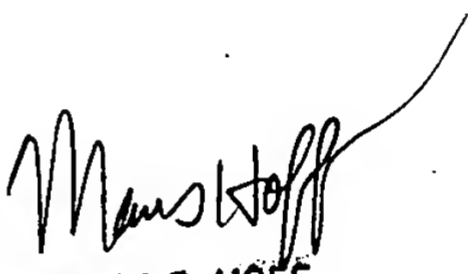
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Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (571)-272-1750.

Elias Desta
Examiner
Art Unit 2857

-ed

November 4, 2004


MARC S. HOFF
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2800